

COC# 112

1720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

6 (509) 924-9200 2 (503) 906-9200

(425) 420-9200

420-9210 924-9290

(503) 906-9200 (541) 383-9310 FAX 906-9210 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #: M1 06076

CLIENT: BRISTOL	CLIENT: BRISTOL				INVOICE TO:								TURNAROUND REQUEST in Business Days*							
REPORT TO: AND	KRANAWETTE	R			BR	151	ra	generalistic medical										ganic Analyse		
	KA ISLAND,		ASK	A											10 7 5 4 3 2 1 <1					
PHONE: 907.770	-0974 FAX: 7				P.O. N	P.O. NUMBER: 21090								5 4 3 2 1 <1						
PROJECT NAME:	HITKA					REC	QUEST	ED ANA	LYSE	S					ST	D.	P	lease Specif	fy	
PROJECT NUMBER:	90															ОТН	ER			
SAMPLED BY: ARK (i Rm		~												*Turnare	ound Requests	less than s	tandard may inc	ur Rush Cha	irges.
CLIENT SAMPLE	SAMPLING	2	10												MATRIX	# OF		7		NCA WO
IDENTIFICATION	DATE/TIME	8	BI					1				2 2			(W, S, O)	CONT.		COMMENT	rs -	ID
1.01AM C42 055L	6/25/01 1420		benn								,				5	2				
2.01AMC42065L	6/25/01 1425	~	bor						· ·						5	2				
3. 01AMC42075L	6/25/01/430		1-												5	2				
401AMC42085L	6/25/01 1435	- Command	ber												5	2				
5.01AMC42098	6/27/01 1440	-	v										-		5	2				
6.01 AMC42 105L	6/25/0 M45	2	lear-												5	2				
701AMC42115L	6/25/01 1450	-	Gar.												5	0				
8. 01 AMC42125L	6/25/01 1455	L	Same												5	2		. !,	, ,	
9.						, ,														
10.						. {														
11.																*,				
12.						-spher-														
13.																				The second secon
14.	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;			,							,				ě					
15.	4.100										~	1								
	a plus	20		1	DATE:	6/25	101	RECEI	VED BY	Co	ng V	rod	c	1		11	. 1			6/25/01
PRINT NAME: Churlie M	auslall FIRM: 8	3/11.	310	X	TIME:	(85	-(PRINT	NAME:		/C1	uig	Bra	dle	FIRM:	N	1		TIME:	1821
RELINQUISHED BY:					DATE:			RECEI	VED BY	/ :		1 /							DATE:	
PRINT NAME:	FIRM:				TIME:			PRINT	NAME:						FIRM:				TIME:	
ADDITIONAL REMARKS: COC REV 3/99 4 4 5 C4-2 Non-Resultel PAGE OF						OF														



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

6 December, 2001

Anne Kranawetter Bristol Environmental & Engineering 2000 W International Airport C#1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 06/25/01 18:21. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson

Environmental Group Leader

112

Work Orders included in this report:

M106076



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

06/27/01 23:03

Reported:

ANALYTICAL REPORT FOR SAMPLES

Project Manager: Anne Kranawetter

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMC4205SL	M106076-01	Soil	06/25/01 14:20	06/25/01 18:21
01AMC4206SL	M106076-02	Soil	06/25/01 14:25	06/25/01 18:21
01AMC4207SL	M106076-03	Soil	06/25/01 14:30	06/25/01 18:21
01AMC4208SL	M106076-04	Soil	06/25/01 14:35	06/25/01 18:21
01AMC4209SL	M106076-05	Soil	06/25/01 14:40	06/25/01 18:21
01AMC4210SL	M106076-06	Soil	06/25/01 14:45	06/25/01 18:21
01AMC4211SL	M106076-07	Soil	06/25/01 14:50	06/25/01 18:21
01AMC4212SL	M106076-08	Soil	06/25/01 14:55	06/25/01 18:21

C. O. C. # 112

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290 **Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

06/27/01 23:03

Diesel Hydrocarbons (C10-C25) per AK102 North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMC4205SL (M106076-01) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	94.8 %	50-150							
Surr: Triacontane	93.8 %	50-150							
01AMC4206SL (M106076-02) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	85.8	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	70.8 %	50-150							
Surr: Triacontane	68.3 %	50-150							
01AMC4207SL (M106076-03) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	179	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	97.0 %	50-150							
Surr: Triacontane	100 %	50-150							
01AMC4208SL (M106076-04) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	84.2 %	50-150							
Surr: Triacontane	82.4 %	50-150							
01AMC4209SL (M106076-05) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	92.7 %	50-150	<u>-</u>						
Surr: Triacontane	89.7 %	50-150							
01AMC4210SL (M106076-06) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane	95.6 %	50-150							
Surr: Triacontane	93.7 %	50-150							

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

06/27/01 23:03

Diesel Hydrocarbons (C10-C25) per AK102 North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMC4211SL (M106076-07) Soil					Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	151	150	mg/kg dry	1	AK 102	06/25/01	06/26/01	0106087	
Surr: 1-Chlorooctadecane Surr: Triacontane	95.3 % 96.9 %	50-150 50-150							
01AMC4212SL (M106076-08) Soil	,,,,,				Sampled: 06	/25/01 Rece	eived: 06/25/	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/25/01	06/27/01	0106087	
Surr: 1-Chlorooctadecane	92.6 %	50-150							
Surr: Triacontane	93.8 %	50-150							

North Creek Analytical - Mobile Lab



Reported:

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter 06/27/01 23:03

BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMC4205SL (M106076-01) Soil					Sampled: 06/	25/01 Rece	eived: 06/25/	01	
Benzene	ND	0.0685	mg/kg dry	50	!1B BTEX/MT	1 06/26/01	06/26/01	0106090	
Toluene	ND	0.274	"	"	"	"	"	"	
Ethylbenzene	ND	0.274	"	"	"	"	"	"	
Xylenes (total)	ND	0.548	"	"	"	"	"	"	
Naphthalene	ND	2.74	"	"	"	"	"	"	
Surr: 4-BFB	81.8 %	50-150							
01AMC4206SL (M106076-02) Soil					Sampled: 06/	25/01 Rece	eived: 06/25/	01	
Benzene	ND	0.0814	mg/kg dry	50	!1B BTEX/MT	TI 06/26/01	06/26/01	0106090	
Toluene	ND	0.326	"	"	"	"	"	"	
Ethylbenzene	ND	0.326	"	"	"	"	"	"	
Xylenes (total)	ND	0.651	"	"	"	"	"	"	
Naphthalene	ND	3.26	"	"	"	"	"	"	
Surr: 4-BFB	88.4 %	50-150							
01AMC4207SL (M106076-03) Soil					Sampled: 06/	25/01 Rece	eived: 06/25/	01	
Benzene	ND	0.0689	mg/kg dry	50	!1B BTEX/MT	1 06/26/01	06/26/01	0106090	
Toluene	ND	0.276	"	"	"	"	"	"	
Ethylbenzene	ND	0.276	"	"	"	"	"	"	
Xylenes (total)	ND	0.551	"	"	"	"	"	"	
Naphthalene	ND	2.76	"	"	"	"	"	"	
Surr: 4-BFB	87.7 %	50-150							
01AMC4208SL (M106076-04) Soil					Sampled: 06/	25/01 Rece	eived: 06/25/	01	
Benzene	ND	0.0728	mg/kg dry	50	!1B BTEX/MT	TI 06/26/01	06/26/01	0106090	
Toluene	ND	0.291	"	"	"	"	"	"	
Ethylbenzene	ND	0.291	"	"	"	"	"	"	
Xylenes (total)	ND	0.583	"	"	"	"	"	"	
Naphthalene	ND	2.91	"	"	"	"	"	"	
Surr: 4-BFB	79.5 %	50-150							

North Creek Analytical - Mobile Lab



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

06/27/01 23:03

Reported:

BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Project Manager: Anne Kranawetter

		inary tree						
Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
				Sampled: 06/2	5/01 Rece	eived: 06/25/	01	
ND	0.0769	mg/kg dry	50	!1B BTEX/MTI	06/26/01	06/26/01	0106090	
ND	0.308	"	"	"	"	"	"	
ND	0.308	"	"	"	"	"	"	
ND	0.615	"	"	"	"	"	"	
ND	3.08	"	"	"	"	"	"	
84.8 %	50-150							
				Sampled: 06/2	5/01 Rece	eived: 06/25/	01	
ND	0.0680	mg/kg dry	50	!1B BTEX/MTI	06/26/01	06/26/01	0106090	
ND	0.272	"	"	"	"	"	"	
ND	0.272	"	"	"	"	"	"	
ND	0.544	"	"	"	"	"	"	
ND	2.72	"	"	"	"	"	"	
88.6 %	50-150							
				Sampled: 06/2	5/01 Rece	eived: 06/25/	01	
ND	0.0741	mg/kg dry	50	!1B BTEX/MTI	06/26/01	06/26/01	0106090	
ND	0.297	"	"	"	"	"	"	
ND	0.297	"	"	"	"	"	"	
ND	0.593	"	"	"	"	"	"	
ND	2.97	"	"	"	"	"	"	
87.3 %	50-150							
				Sampled: 06/2	5/01 Rece	eived: 06/25/	01	
ND	0.0820	mg/kg drv	50					
		"	"	"	"	"	"	
		"	"	"	"	"	"	
	0.656	"	"	"	"	"	"	
ND	3.28	"	"	"	"	"	"	
86.5 %	50-150							
	ND N	ND	ND	ND	Result Limit Units Dilution Method	ND	Result	Result

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported:

06/27/01 23:03

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

Physical Parameters per APHA/ASTM/EPA Methods North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit Units	Dilution	Method Prepared Analyzed Batch Not
01AMC4205SL (M106076-01) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	79.2	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4206SL (M106076-02) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	92.0	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4207SL (M106076-03) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	90.1	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4208SL (M106076-04) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	84.3	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4209SL (M106076-05) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	88.6	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4210SL (M106076-06) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	90.8	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4211SL (M106076-07) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	89.5	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088
01AMC4212SL (M106076-08) Soil				Sampled: 06/25/01 Received: 06/25/01
% Solids	90.7	0.0100 % by Weight	1	Gravimetric 06/25/01 06/26/01 0106088

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Surr: Triacontane

Project Manager: Anne Kranawetter

06/27/01 23:03

Diesel Hydrocarbons (C10-C25) per AK102 - Quality Control

North Creek Analytical - Mobile Lab

	11010	ii Ci ccii i inai, ti	cui ivio	one Lu	•				
Analyte	Result	Reporting Limit Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	Result	Ziiiit Oiits	Level	Result	70 KLC	Limits	KI D	Limit	110103
Batch 0106087 - 3545 ASE									
Blank (0106087-BLK1)			Prepare	ed: 06/25/0	1 Analyz	ed: 06/26/0)1		
Diesel Range Organics	ND	150 mg/kg wet							
Surr: 1-Chlorooctadecane	20.8	"	23.4		88.9	50-150			
Surr: Triacontane	19.1	"	23.4		81.6	50-150			
LCS (0106087-BS1)			Prepare	ed: 06/25/0	1 Analyz	ed: 06/26/0)1		
Diesel Range Organics	1340	150 mg/kg wet	1250		107	75-125			
Surr: 1-Chlorooctadecane	21.6	"	23.4		92.3	50-150			
Surr: Triacontane	23.2	"	23.4		99.1	50-150			
LCS Dup (0106087-BSD1)			Prepare	ed: 06/25/0	1 Analyz	ed: 06/26/0)1		
Diesel Range Organics	1310	150 mg/kg wet	1250		105	75-125	2.26	20	
Surr: 1-Chlorooctadecane	24.9	"	23.4		106	50-150			
Surr: Triacontane	21.6	"	23.4		92.3	50-150			
Matrix Spike (0106087-MS1)	Sou	ırce: M106075-01	Prepare	ed: 06/25/0	1 Analyz	ed: 06/26/0)1		
Diesel Range Organics	1560	150 mg/kg dry	1380	ND	113	60-140	•	•	
Surr: 1-Chlorooctadecane	21.5	"	25.9		83.0	50-150			

25.9

97.3

50-150

North Creek Analytical - Mobile Lab

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

25.2



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

06/27/01 23:03

BTEX,MTBE and Naphthalene per EPA Method 8021B - Quality Control

North Creek Analytical - Mobile Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0106090 - MeOH Extraction					
Blank (0106090-BLK1)			Prepared & A	Analyzed: 06/26/01	
Benzene	ND	0.0250 mg/kg wet			
Toluene	ND	0.100 "			
Ethylbenzene	ND	0.100 "			
Xylenes (total)	ND	0.200 "			
Naphthalene	ND	1.00 "			
Surr: 4-BFB	2.32	"	2.50	92.8 50-150	
LCS (0106090-BS1)			Prepared & A	Analyzed: 06/26/01	
Benzene	2.18	0.0250 mg/kg wet	2.50	87.2 69-138	
Toluene	2.21	0.100 "	2.50	88.4 53-151	
Ethylbenzene	2.41	0.100 "	2.50	96.4 61-141	
Xylenes (total)	6.80	0.200 "	7.50	90.7 62-141	
Naphthalene	3.20	1.00 "	2.50	128 65-135	
Surr: 4-BFB	2.45	"	2.50	98.0 50-150	

North Creek Analytical - Mobile Lab

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

8 of 9



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported: 06/27/01 23:03

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Report recreated from:
			\\sisters\elmnt\Report\M106076 FINAL 06 27 01
			2303.mdb
			Default Report (not modified)